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ABSTRACT

This study examined whether male and female adolescents have equal facility in using a response orientation and a rights orientation in solving moral problems. A person using a response orientation in discussing moral dilemmas considers the moral problem as issues of relationships or of response, i.e., how to respond to others in their particular situations. A person using a moral orientation of rights construes the moral conflict as issues of conflicting claims between self and others (including society). The rights orientation resolves dilemmas by invoking impartial rules, principles, or standards. Participating in the study were eight adolescents, equally divided between boys and girls who were 11 and 15 years of age. The adolescents were read moral dilemmas embedded in fables and asked how they would solve them. Results showed that both sexes used both orientations, but there was a tendency for female adolescents to use both orientations or switch orientations during the discussion of one dilemma, while males of both ages used one orientation for one dilemma and the other orientation for the second. There was a tendency for females to use the response orientation more frequently. (RM)

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Moral Problem Solving: A Pilot Study of Adolescent's Ability to Use Both Moral Orientations

Submitted by

Donna Kay Johnston

SP016752

Paper presented at the Harvard International Conference on Thinking (Cambridge, MA, August 19-23, 1984).

Introduction

Morality and Gender

In her initial study of women's moral choices, Gilligan (1978) observed that women's moral judgments are made on the basis of different considerations from those made by men. Whereas, Kohlberg (1969) had identified a consideration of rights and justice, Gilligan has identified a consideration of care and response. Gilligan's work raised questions about the universality of Kohlberg's theory and about sex differences in moral thinking.

Kohlberg interviewed men to develop his six stages of moral reasoning. Kohlberg, in the tradition of Kant (1959) and Piaget (1965), describes morality as a question of what is right, just and fair and postulates stages which follow an invariant sequence in which each stage shows a more complete, sophisticated and universal understanding of abstract principles of rights and justice. As a person becomes more sophisticated in his understanding of what is right and just, s/he begin to understand that being right does not mean avoiding punishment, or performing roles that maintain a conventional order, but that moral justice resides in "conscience or principle orientation to a choice involving appeal to logical universality and consistency" (Kohlberg, 1969).

Gilligan (1978, 1982) in her work with women contemplating an abortion found that the women's concerns regarding their dilemma were not consonant with the concerns Kohlberg had described. She found that their concerns dealt with how to respond to and care for the needs of some or all of the people involved in the moral problem. Gilligan called these concerns an ethic of care and identified a response orientation to moral problems. Since her work dealt with women and Kohlberg's with men, the

differences in the way men and women think about moral problems was called into question.

The work of Gilligan led Lyons (1982) to construct a coding scheme for real life moral dilemmas. This coding scheme defines two moral orientations one of response and one of rights. The response orientation is associated with the care ethic Gilligan identified. A person using a response orientation in discussing moral dilemmas considers "the moral problem as issues of relationships or of response, that is how to respond to others in their particular situations." This orientation considers it important to resolve moral conflict by "maintaining relationships and response, that is, by maintaining the connections of interdependent individuals to one another; or promoting the welfare of others or preventing them harm; or relieving their burdens, hurt or suffering (physical or pyschological) of others"(Lyons, 1982, p. 29).

A person using a moral orientation of rights construes the moral conflict as "issues, especially decisions, of conflicting claims between self and others (including society)." This orientation associated with Kohlberg's work on the morality of justice resolves dilemmas by "invoking impartial rules, principles, or standards" and considers "one's role-related obligations, duty or commitments or standards, rules or principles for self, others or society" (Ibid.).

Lyons' work systematically classified responses and her data corroborated Gilligan's idea that a care ethic is more often associated with women. The rights orientation was more often associated with men.

Morality and Cognition

Piaget describes the acquisition of formal operations which is acquired in adolescence. One of the cognitive abilities acquired is that of isolating variables in a problem and then systematically combining these variables in order to find which variables or combinations of variables are necessary to solve the problem. It is necessary to exclude the variables which do not contribute to the solution of a problem (Inhelder & Piaget, 1958).

Piaget's work in cognition influenced Kohlberg in his work on morality. Kohlberg's theory of moral development is based on excluding variables in a problem until the most universal moral claim remains. The most universal claim is the variable needed to solve the moral problem (Colby, Gibbs, Kohlberg, Speicher-Dubin, Candee, 1979).

Gilligan writes that a male sets up a hierarchical ordering to solve dilemmas and that a contrasting image is one of a network or web in which the ordering is not hierarchical (1982, p. 33). She suggests the exclusion of variables is not the only strategy used to solve moral dilemmas.

Cole writes one "cannot assume that psychological tasks, be they derived from theories of cognitive development or the structure of intelligence, evoke the same kind of behaviors in subjects from different cultures (Cole, 1971, p. xii+).

It seems Gilligan's work extends Cole's point and questions this assumption about behavior in subjects from the same culture. Why should it be assumed that when faced with a moral problem the goal for all people is to isolate the most universal claim? In fact, the work of Gilligan and her

colleagues has shown that there is an alternative mode of solving problems. This alternative mode has been described in psychological literature in the past and it is illuminating to review some writings that describe these two modes.

This alternative seems to be suggested by Polanyi when he presents two conflicting aspects of formalized intelligence:

1. acquisition of formal instruments
2. pervasive participation of the knowing person in the act of knowing by virtue of an art which is essentially inarticulate (Polanyi, 1958, p. 70).

The second alternative is difficult to articulate, but it is the mode of thinking which Gilligan (1982) describes women as using in moral decision making.

Keeping Polanyi's idea in mind, a return to Cole gives a less mystical interpretation of the second aspect of formalized intelligence. Cole describes "functional systems" of cognitive processes as "flexible and variable organizations of cognitive processes directed toward some fixed end" (Cole, 1974, p. 193). The idea of systems seems useful. One could have different systems to organize a moral problem. It seems that one system could be the one that Kohlberg carefully documents in his theory of moral development. This system gradually acquires formal instruments or a formal system to help one eliminate variables in a moral problem until the most moral claim remains. This is the claim used to solve the moral problem.

Another system might not be concerned with the exclusion of variables, but would be concerned with a way to include all the variables that are involved and then to try to balance the claims made by these variables.

Cole quotes Wolfgang Kohler who said that modern perception teaches people "to see the world through the eyeglasses of natural science" (Cole, 1974, p. 21). This point regarding scientific modes of thought seems important to consider in light of Polanyi's distinction between the two conflicting intellectual processes. The scientific abstract thinking may be the "acquired formal system" which Polanyi describes and which Piaget and Kohlberg document.

Gilligan documents a different system which perceives the total problem and does not seek to eliminate some of the parts of the problem. Bergson in his discussion of perceiving the total, suggests that by "making the necessary effort to embrace the whole, one perceives that one is in the real and not in the presence of a mathematical essence (Bergson, 1946, p. 34). There is a way in which Piaget and Kohlberg focus on the structure of thinking which isolates the thinker and the problem from any outside influences; their descriptions of moral thinking almost reduce the moral solution to a mathematical essence.

Wertheimer wrote that a solution to problems may be reached "in the realization of the inner structural relation" of the dilemma (Wertheimer, 1959, p. 40). He goes on to discuss how the structural features of the interaction between the individual and his field are basically involved in this problem solving.

> In connection with the latter (the interaction) we have to realize the structure of the social situation, the social atmosphere one is in, the philosophy of life developed in the behavior of the child or person in his surroundings (Ibid., p. 64).

This last point seems to be sympathetic with Vygotsky's ideas about the interaction of the learner and the society in which s/he participates.

Vygotsky presents a theory of thinking which is an interactionist theory, but not the same kind of interaction which Piaget describes. Vygotsky puts emphasis on the influence of the society in which the thinker lives. He believed children first learn in an interaction with adults and as this learning gradually becomes internalized, "an interpersonal process is transformed into an intrapersonal one. All the higher functions (voluntary attention, logical memory, formation of concepts) originate as actual relations between human individuals" (Vygotsky, 1978, p. 57). This theory allows for individual differences. It is a theory which allows for Wertheimer's connections. Even more important than allowing for these connections, it explains how these connections might lead to different ways to think about a problem.

Keeping this idea that different interpersonal interactions may lead to different intrapersonal functions, leads to the work of Chodorow. Chodorow suggests that men and women learn to relate differently. "Most generally I would suggest that a quality of embeddedness in social interaction and personal relationships characterize women's life relative to men's" (Chodorow, 1974, p. 66). She states that men in order to develop must separate or deny their attachment to their mothers, women in their development do not need to separate in this way. This appears critical in the way men develop separate from relationships and women develop involved in relationships.

Chodorow's idea of men developing in a separate way and women developing in a connected way would clearly be two different ideas of interpersonal functions. Then following Vygotsky's idea of thinking being transformed

from inter to intrapersonal, it would follow that the intrapersonal thinking would be different for a person whose society involves identifying oneself as part of interpersonal relations or separate from them.

With these psychological arguments in mind a switch to the domain of moral philosophy will inform this discussion. The limits of these philosophical ideas will be to present examples of moral philosophers who exemplify these two systems of problem solving and to connect these moral philosophies to the psychological theories of Kohlberg and Gilligan.

Two philosophers who have formulated principles as a basis for moral decision making are Kant and Mill. Mill with his principle of utility and Kant with his categorical imperative have derived principles which are universal rules for moral decision making. The virtue of these principles is that they are universal, not situation specific. In contrast, Iris Murdoch insists that instead of deriving principles which are general rules for morality, one must look at a situation with "just attention." This just attention is a "just and loving gaze directed at an individual reality" in an effort to understand the person in the context of the problem or situation in which the person is operating (Murdoch, 1970, p. 34). If one pays attention, tries to observe without one's prejudices, one can know what is true of a person and what is happening to others. "We can understand others if we can to some extent share their contexts (often we cannot)" (Ibid., p. 32). If through our attention, we learn to understand these contexts, then the moral considerations in a situation become obvious.

Murdoch turns traditional philosophy around. Her point is that instead of living a life based on universal principles of morality, one is urged to pay close attention to the specifics of the moral problem.

Juxtaposing these philosophers gives a way to distinguish the two systems or strategies which can be used to solve moral problems. These two systems move us back into the realm of psychology. Mill and Kant clearly advocate the acquisition of formal instruments to solve moral problems. Murdoch's idea of "just attention" seems to be sympathetic to Polanyi's "pervasive participation of the knowing person in the act of knowing" (Polanyi, 1958, p. 70). Returning to the ideas that Gilligan and Kohlberg posit, one can see two moral strategies and two moral goals at work in the thinking that each describes. Kohlberg posits a formal method of finding the most moral claim in a moral problem. One must do this by excluding the claims that are less important. Gilligan presents a different strategy, one that includes all claims and tries to balance the needs of the people making the claims. Kohlberg seems to represent moral psychology's study of the moral philosophy developed by philosophers like Kant and Mill; Gilligan studies a moral psychology which could look to Murdoch for philosophical underpinnings.

Thus, the concept of two strategies has been developed in past and present literature in cognition. Gilligan and Kohlberg describe these two strategies in relation to thinking about moral problems. Their work has described two moral orientations and these two orientations lead to the research reported here.

The work previously done in the study of moral dilemmas has been concerned with discovering the orientation a person has used spontaneously. As previously discussed, this spontaneous solution has been linked to gender with more men using a rights orientation and more women using response (Lyons, 1982). However, the ability to switch orientations has not been

systematically researched. Will males and females have equal facility in using both orientations? If they do have equal facility, will both orientations seem equally moral or will one orientation seem a more satisfactory mode of moral problem solving? The pilot study reported here was designed to test a methodology which would begin to answer these questions.

The moral dilemmas to be used in this pilot study are embedded in fables. (See Appendix for the text of the fables.) In previous work, the author has determined that both orientations can be used to solve the dilemmas. Subjects interviewed have solved the dilemmas in the rights orientation by applying a universal rule such as, "It is the mole's house; therefore, the porcupine must leave," or in the response orientation by trying to meet the needs of all the animals in the fable, for example. "The moles and porcupine must talk and then share the house" (Johnston, 1979, 1982). Thus the fables present a dilemma which is not a real life problem for the subject, but is one that engages a person in discussing a moral problem and that allows both moral orientations to be used.

In addition to testing the success of the methodology, the study looked for patterns to begin to answer the following questions:

1) Can both sexes solve the dilemma using both orientations?

2) Can both age groups solve the dilemmas in both orientations?

3) Which orientation is utilized spontaneously by girls and which by boys?

4) Which orientation is most often used spontaneously by eleven year olds and which by fifteen year olds?

5) Is there a difference in the solution which is decided to be the best one to solve the moral dilemma?

It was predicted that there would be a connection between spontaneous solution and sex with more girls using a spontaneous response orientation

and more boys using a spontaneous rights orientation. It was also predicted that if both males and females switched orientations, there would be a difference in the solution they felt was the best one. Girls would be more satisfied with problems solved in the response mode and boys with problems solved in the rights orientation.

Method

Subjects

The subjects for this pilot study were eight adolescents who live and attend school in a suburban community north of Boston. The subjects were equally divided between boys and girls who were eleven and fifteen years of age. Therefore there were two eleven year old girls, two fifteen year old girls, two eleven year old boys and two fifteen year old boys. Parental permission was obtained for each child participating in the study.

Task and Procedure

The interviews were conducted in a high school and an elementary school. In both schools an office was used for the interview. After each student was settled, the interviewer explained:

> I am interested in how young people think about problems. I am going to read you two fables. Both of these fables have a problem which I am going to ask you to solve. There is more than one way to solve this problem and I am interested in knowing what you think about each solution; there is not one right answer to these problems so I'm not waiting for a correct answer. I am really interested in your thinking. The tape recorder is here because I can't write as quickly as you talk. The transcriptions will not identify you.

Following the introduction the interviewer read one of two fables either "The Dog in the Manger" or "The Porcupine and the Moles." (See Appendix for

text.) Following the first fable and discussion, the second fable was read; the fables were alternated in the order of presentation. Since each adolescent heard both fables there was a total of sixteen fables used in this study.

After the first fable was read the interviewer began a technique of interviewing which utilized standard questions combined with the method Piaget called the "clinical examination" (1979, p. 10). The first standard question was, "What is the problem?" followed by appropriate probes. Then the subject was asked, "How would you solve it?" During this phase of the interview, counter suggestions were offered after the subject gave a solution. The counter suggestions were made in order to examine the student's commitment to her (his) initial solution and to find the student's spontaneous understanding of other solutions.

The student's first solution was considered the spontaneous solution. After the spontaneous solution was offered the student was asked, "Is there another way to solve the problem?" This standard question began the process of discovering the subject's ability to switch orientations. The spontaneous orientation was judged by the interviewer to be rights or response.

When the subject offered an alternative solution, the probing process was repeated. If the subject was unable to spontaneously switch orientations, the interviewer used the following procedure. If the spontaneous solution had been in the rights orientation, the interviewer said:

> Is there a way to solve the dilemma so that all of the animals will be satisfied?

If this did not help the subject adopt the response orientation, the interviewer said:

> Some people would say that you can solve this problem by having the animals talk together and decide on a way in which they could all be happy, what do you think of that?

This question was followed by another standard question which was:

> How do you think someone who solved the problem in that way would think about the problem?

Similarly, if the spontaneous solution had been in the response orientation, the interviewer said:

> Is there a rule you could use to solve the problem?

If this did not elicit a rights solution, the interviewer said:

> Some people would say that you could solve this problem by using a rule such as 'this is the mole's house (or the ox's stable) so the porcupine (or dog) must leave. What do you think of that?

This question was followed by:

> How do you think someone who solved the problem in that way would think about the problem?

Each of the interviewer's questions more clearly defined the thinking inherent in the second orientation for the subject. The idea of asking for the second orientation assumed the interviewer recognized the spontaneous orientation while interviewing. The author has had experience coding the orientations and did recognize the rights or response orientation while interviewing. If there was any question about which orientation was used spontaneously, the interviewer went through both sets of standard questions to elicit the subject's thinking in both orientations.

Finally the interviewer asked:

> Of all the solutions we discussed, which one is best?

Coding

The data was coded in the following way. The Real Life Coding Scheme (Lyons, 1982) categorizes moral orientations in two ways — one an orientation of rights and one of response. In coding the solutions to the fable data, the responses were coded by applying the logic of the coding scheme in the following way.

In the overview of the coding scheme the two moral orientations of right and response are defined. As discussed the morality of rights is defined as construing moral problems as "issues/decisions of conflicting claims between self and others (including society). These issues are resolved by invoking impartial rules, principles or standards which consider one's obligations, duty or commitment; or standards, rules or principles for self others and society." The response mode is defined as construing problems as issues of how to respond to others in their situations. In order to respond one considers how to "maintain relationships" or "promote the welfare of others or prevent them harm or relieve their burdens, hurt or suffering, physical or psychological" (Lyons, 1982, p. 29). The coding of the fables relied on this logic. When the solution for the fable relied on a principle such as "the right to own property" or "the right to life" expressed as a universal understanding, the solution was coded in the rights mode. Some examples of answers coded in the rights mode are:

> The porcupine has to go definitely. It's the mole's house.
>
> It's their ownership and nobody else has a right to it.
>
> Send the porcupine out since he was the last one there.

Answers which responded to the needs of both animals in the dilemma were coded response. Examples of these solutions are:

> If there's enough hay, well this is one way, split it. Like if they could cooperate. Like take some of the hay so the dog can rest on it and take some of the hay so the ox can eat it. That's the only way to work it out.
>
> There'd be time that the moles would leave or the porcupine would stand still or they'd take turns doing stuff -- eating and stuff and not moving.
>
> The both of them should try to get together and make the hole bigger.

Results and Discussion

This section will be divided into two parts. The first will briefly discuss the success of the methodology. The second will discuss the results and patterns found in the study.

A caveat is interjected here as to the small sample used in this pilot study. No claim to generalization of these findings is being made, but instead the results are discussed from the standpoint of generating questions to be asked in the thesis.

Methodology

A brief discussion of the methodology used in this pilot study is warranted. The purpose of the study was to determine if the combination of clinical interview and standard questions would elicit information regarding adolescent's ability to understand the logic of both orientations and to switch orientations in order to solve a moral problem. The methodology was designed to provide answers to the following questions:

1. Can both sexes solve the dilemma using both orientations?
2. Can both age groups solve the dilemmas in both orientations?
3. Which orientation is utilized spontaneously by girls and which by boys?
4. Which orientation is most often used spontaneously by eleven year olds and by fifteen year olds?
5. Is there a difference in the solution deemed best?

In addition to providing answers to the preceding questions, the interviews also yielded data which followed patterns to be discussed. These patterns have led to formulations of new questions to be looked at in the thesis. Therefore, the results of the pilot study reported here indicate that this methodology should be successful in the thesis.

Sex

As the reader will recall one of the questions of interest in this research was: can both sexes solve the dilemmas using both orientations? The idea of using both orientations can be looked at in two ways: one is the use of different orientations for the spontaneous and best solutions; the second is the use of both orientations during the discussion. The data in the tables below report only the use of different orientations for spontaneous and best solutions.

DOG IN THE MANGER

	orientation: rights	response
M	2	2
F	1	3
	3	5

spontaneous solution

	orientation: rights	response
M	1	3
F	0	4
	1	7

best solution

The data above represent the orientations used for spontaneous and best solutions for the "Dog in the Manger" dilemma. Both males and females spontaneously used both orientations although females used response more frequently. The females all decided that the response solution would be the best one; this result was predicted. The interesting pattern was that more of the boys felt the response orientation provided a better solution for this fable, too.

PORCUPINE AND THE MOLES

	orientation: rights	response
M	3	1
F	2	2
	5	3

spontaneous solution

	orientation: rights	response
M	3	1
F	0	4
	3	5

best solution

This fable presented slightly different results. The girls spontaneously used both rights and response and the boys spontaneously used rights more frequently. Again, all the girls changed to response for their best solution. The boys maintained the same orientation for best solution that they used for the spontaneous solution.

These findings show that the boys used both orientations, but were not as likely to switch from the orientation decided upon for the spontaneous solution to the other orientation for best solution. The two older girls changed orientations during the interview. Why do the fifteen year old girls decide on different best solutions from their original

solution: are they more susceptible to subtle right answers because of counter suggestions made by the interviewer? To answer the question, one must look at excerpts from the data.

Sara a fifteen year old spontaneously solves both dilemmas by using a rights orientation:

> Porcupine and Moles
>
> I'd tell him and say just nicely, this is my home and you are really disrupting our daily patterns of life, ...you'll have to go look for another home elsewhere.
>
> Dog in Manger
>
> I'd say why shouldn't I have it instead of no one. Ask him (dog) to move.

Her discussion of the "Porcupine and Moles" remains in a rights orientation until the interviewer suggests finding a way to share the cave. She responds to this suggestion:

> Talking is good. Then you find out how the other feels. It can often lead to compromise and they could work something out. It'd be good.

In her discussion of the "Dog in the Manger," she feels initially the dog should leave, but in her response to a question about rule she says, "This is the law, but the dog isn't always going to listen." Her decision that sharing the manger was better was made, "because that would make them both happy and they would both basically get what they wanted and no one would lose." She changes her orientations from rights to response in both fables. In trying to answer the question why she switchs orientation, the interviewer asks:

> I: In both fables you thought the compromise was the better one even though that was not your solution. Is there a way that you think about that?

S: I realize I did that. I think it's a person's first reaction to do what benefits them. Then if they stop and think they want to do what benefits everyone.

In the fable in which Elise switched from an initial rights orientation to one of response, her initial answer included a response statement even though it was predominantly rights:

I guess I'd tell the dog to get up and let the ox in. Then maybe after the ox laid down, the dog could lie down next to him to keep warm.

She spontaneously offers an answer with both orientations; when asked to choose the best solution, her rights argument drops out in favor of a response orientation.

It could be argued that these girls were more susceptible to counter suggestions made by the interviewer, but in fact, these excerpts show that in the dialogue between them and the interviewer, they came to a decision on their own. Neither girl just repeats the ideas in the interviewer's question but used the ideas to further their own thinking and Elise even comes to the idea that the animals should share without a counter suggestion.

I: Is there another way to solve the problem?

E. Having the dog tell the ox that he can eat. Maybe if the ox ate half of it or something, then the dog could have half of it for himself to lay on.

In the preceding excerpt the interviewer did not offer a spontaneous solution; there was no suggestion of the other orientation, yet Elise spontaneously offers it as an alternative way to solve the problem. After giving a solution from both orientations, she continues the discussion with the interviewer. Both fifteen year old females show evidence of understanding both a rights solution in terms of established social rules,

e.g. it is the ox (or mole's) property, and a response solution. Yet, they both decide on the best solution as one of response because "no one is winning." Further discussion of the idea of winning will follow. Turning to the male data, it can be seen that all males have solutions cast in both orientations. This suggests that the boys are able to discuss the logic of both orientations. The interesting aspect of the male data is that the boys maintain the orientation chosen for their spontaneous orientation as the orientation decided upon for the best solution. The male data also raises some questions: How do they respond to the dilemmas when counter suggestions are offered? Is it possible to see a pattern in their maintaining the orientations throughout the discussion? Do they reject counter suggestions?

Dave an eleven year old male sees that the only solution is for one of the animals to leave. His initial idea is "I'd let him have that one, so I wouldn't get hurt by the pointy quills." His first response is that of self protection. He repeatedly worries about "being hurt by those sharp quills." When asked if there is another way to solve the problem, he returns to his original idea. When given the counter suggestion of "living together for the remainder of the winter, he rejects it as a bad solution because, "Well they would probably be pointed out and hurt bad." The bottom line for him is that they shouldn't be hurt, because "they're part of nature and animals have their right to live." His best solution "the porcupine should find a stone cave," took into account the needs of both animals but clearly did not look at the possibilities of a compromise. The porcupine should leave because, "the porcupine was the one doing the hurting, not the moles." Pushing the compromise issue further the interviewer asks,

Is there a way that everybody could be satisfied?

D: Yeah, living on their own.

Dave uses the other orientation of response in his spontaneous solution for the "Dog in the Manger." His solution was "I'd let the ox have the hay and the dog could sleep on top of it." He gave alternate solutions such as, "wait for the dog to leave, try to get the dog out," but finally returned to his original solution, "share" as the best solution. It is clear that Dave seems to be interested in avoiding conflict, but rather than emotional pain, he seems to want to avoid physical hurt.

So in both fables Dave rejects counter suggestions as unworkable, but seems to begin to see the thinking involved in the other orientation and in fact uses both orientations in his solutions. This is the same for the other eleven year old male, John; he also uses response for both spontaneous and best solutions in the "Dog in the Manger" and rights in the "Porcupine and the Moles."

In the "Dog in the Manger" John states the best solution is sharing with the caveat, "but you can't be totally nice because you get taken advantage of."

In the "Porcupine and the Moles," he uses the other orientation, saying, "I'd ask the porcupine to leave, but I'd have to get really serious about it and really ask him to leave direct." After thinking about the possibility of the porcupine's death, he says, "I'd help him because I wouldn't mind if he had to suffer but not die." He clearly looks at the right to life as a priority. His best solution was to build a wall, which seems like a compromise, but his reason was "they kinda both have rights to the hole."

So both eleven year old males have an understanding of both orientations in their discussion. They seem to reject some counter suggestions as unworkable and admit others into their thinking, but finally do maintain their original response.

One of the fifteen year old boys also maintains a consistent orientation through both spontaneous and best solutions, the other fifteen year old does on one and switches on the other. Mark spontaneously solves the "Porcupine and the Moles" by saying, "the both of them should try to get together and make the hole bigger." Then says, "either that or send the porcupine out since he was the last one there." He immediately sees the issues involved in thinking about both orientations; however, he eventually decides on a compromise for the best solution, but says a compromise is like a law.

I: How is it like a law?

M: Well, if so say, if you set all those rules and laws like stay on your side, take it easy on us, then if he breaks it, the law, you agree that either one who breaks the law has to leave and find a new home.

So in Mark's discussion one sees ideas from both orientations but his response orientation is informed by the logic of a rights orientation.

He adopts a rights point of view totally in his solution for the "Dog in a Manger."

I'd say maybe later on if there's enough room after I'm all settled in, maybe you can find a corner up the back somewhere and continue your rest, but right now I want my dinner and please get out of my way.

He rejects the counter suggestion of a compromise because:

> M: The ox is a lot bigger than the dog.
>
> I: Is there a way to solve that problem so both animals can be satisfied?
>
> M: Only find another place for the dog to sleep. This is my stall, it's been my stall, it's going to be my stall.

The best solution is for "the ox to get the stable, he's come in from a hard day's work." Mark seems to have elements of both orientations in his spontaneous thinking about the dilemmas, but he doesn't change his orientations even after being challenged on his spontaneous solution's efficacy.

Sam seems to be a different case because during his discussion on the "Dog in the Manger," he switched orientations. His original solution is given taking the ox's view:

> I suppose, while the dog got there first even though it was the ox's hay...there must be more hay in the barn so I'd probably go looking for more hay in the barn, but I'd probably feel defeated in a way.

When the suggestion is made that some one might say there must be a way to solve this by talking about it, he feels that person:

> must be a great compromiser, they understand what they want and I think that's the best way to do things -- talk about things, before you fight.

He does not follow the counter suggestion that the solution should be a compromise to satisfy all animals but feels the need to compromise might be due to weakness.

S: Maybe they could be physically weak, if they were that way, maybe they'd want to talk about things. If you want to fight about things, in a way, it makes you kinda weak in speaking. If you want to talk about something, then you have a greater strength in compromising. They might be weak physically, but they could be greater in thinking things out.

Eventually he feels the best solution would be to share, but the sharing seems to be because of the "weakness" in ability to fight. The interesting point about his switch in orientation is the juxtaposing of being physically weak with the need to compromise. This is an idea which was not articulated by any other student.

In the "Porcupine and the Moles" he sticks to his original solution of "the porcupine has to go definitel" because "it's the moles' house." In discussing a compromise he feels it's important for both animals to be satisfied, but thinks the porcupine will be most satisfied alone because "he won't be bothering anybody." Sam's ability to switch orientations is evident because he can use both orientations to solve these dilemmas.

There is not a consistent answer to the question of why or if the boys reject the counter suggestions. It does appear that all the males do use the strategies inherent in both orientations. However, when they are challenged by counter suggestion, which utilize the orientation which they did not spontaneously choose, they often seem to respond by describing why the counter suggestion is unworkable, rather than considering it as part of a new solution.

Age

The question of tendency to solve the dilemma in both orientations was also asked of different ages. Again data presented in the following tables represents the use of different orientations for spontaneous and best solutions.

DOG IN THE MANGER

age	orientation rights	response
11	0	4
15	3	1
	3	5

spontaneous solution

age	orientation rights	response
11	0	4
15	1	3
	1	7

best solution

THE PORCUPINE AND THE MOLES

age	orientation rights	response
11	2	2
15	3	1
	5	3

spontaneous solution

age	orientation rights	response
11	2	2
15	1	3
	3	5

best solution

All the eleven year olds maintained the same orientation for both spontaneous and best solutions for both fables. Three of the four fifteen year olds switched orientation during the course of the interview. This indicates a slight difference in tendency to switch orientations depending on age. The older subjects were more likely to use both orientations in solving one dilemma. The younger subjects tended not to, they maintained the same mode.

In the preceding discussion regarding sex differences, it was demonstrated that the eleven year old boys showed some understanding of both orientations. They even used both orientations spontaneously. The eleven year old girls only used the response mode. The question then is, are the eleven year old girls so embedded in a response mode that they cannot think about the ideas inherent in the rights mode? The data in the tables do not reveal this answer, but the interview data do.

Lisa, an eleven year old girl decided that problem is that, "the moles are getting hurt." She solves it by saying "separate them a little." Another solution would be "to help the moles build a house." So far both these solutions involve responding to the needs of both animals. To the question, "is there another way to solve a problem," she replies, "maybe the moles could find a bigger cave and they'd let the porcupine live in the small cave,"again a response solution. She rejects the solution of the porcupine's leaving as "too one sided." For the "Dog in the Manger," she decides that the solution would be to "share the manger." She again rejects the idea that the dog leave because "it wouldn't be the loving way to do it."

Interestingly, once she uses rights language, "the dog has a right to the place, too, because he was sleeping there, when the ox wasn't even using it." She looks at the rights of the intruder in the story and doesn't consider the rights of the ox.

So it seems in her case, she steadfastly looks at all needs and dismisses any solution meeting only one need as "one-sided." This suggests that she can understand the solutions involved in a rights argument, but rejects them.

The other eleven year old female Ann also seems to use both orientations, and seems to be struggling with the ideas involved in both. Reason equals reciprocity for her, but reciprocity is not simply a stage two, you scratch my back, I'll scratch yours (Kohlberg, Gilligan, 1971). Her reciprocity and reason look past the acts to the consequences, which are seen as feelings toward each person.

I: Why is it important to reason things out?

A: So you won't get into fights.

I: Why wouldn't you want to get in fights?

A: I don't want to get in fights. I'm in a lot of fights with my sister T. We fight a lot and I don't like to, cause it leaves me sad.

Ann like Lisa uses the language of rights, "it was only fair because it was the ox's manger," but casts the whole issue of fairness and rights into a context of preserving relationships.

I: Now when you were talking about the rule, how would you think about that? How would you explain that to the dog?

A: Like if it's mine you should get up and let me have it.

I: Why is that a good thing to do?

A: So you won't get into fights.

She also casts fairness into the background when dealing with the porcupine and the moles, "that the moles should leave that wouldn't be fair because it was their cave in the first place." After acknowledging ownership and other possible solutions, she returns to her original idea and says:

> the moles would feel sorry that they had to tell
> the porcupine to leave after they made a friend.

Ann clearly has elements of a logic which determines a rights orientation, but returns to her original notions of response about the solutions.

Then, for both these eleven year old females, the use of both orientations is not shown in their switching from one orientation to another, but is apparent in their discussing the rights orientation.

Spontaneous Solution Orientation

Looking at the preceding tables, it can be seen that the spontaneous solution used more frequently by girls was response. The boys were slightly more likely to use the rights orientation to solve the fables. This tendency for the females to solve the dilemmas in the response mode and the boys to solve using the rights orientation was predicted, since previous work (Gilligan, Lyons) had shown similar results.

Best Solution Orientation

The best solution was the one which each subject felt was the most satisfactory way to solve the problem. As shown in the previous tables,

the tendency in both males and females was to decide on a best solution in a response orientation. This was different from expectations. It was expected that the girls would feel the most satisfactory answer would be in the response orientation; however, it was not predicted for the boys. Whenever a rights orientation was selected for the best solution, it was selected by boys, but they tended to feel that response provided a better solution especially in the fable the "Dog in the Manger." A discussion of this unexpected finding follows.

Summary and Conclusions

The results of this study yielded differences between sexes and ages. Both sexes use both orientations, but there is a tendency for female adolescents to use both orientations or switch orientations during the discussion of one dilemma, while males of both ages use one orientation for one dilemma and the other orientation for the second.

There was a tendency for females to use the response orientation more frequently. There was also a tendency for both males and females to use the response orientation more frequently for the best solution.

An interesting aspect of the data is this tendency for the response orientation to be more frequently selected for the best solution. This might have occurred because during the discussion more and more contingencies or specifics of the problem are brought into focus. The more variables one must consider, the less satisfactory a rule becomes.

The fable the "Dog in the Manger" also pulled more response solutions in both spontaneous and best solutions which accounts for the difference in the use of rights and response orientations. This is surprising because

the story clearly discusses the rights of the ox to eat in his manger being usurped by the dog. Possibly, the fable seems easier to solve by compromise because the subjects felt the stable literally provided more room in which to maneuver. Subjects responded, "well, there's got to be more hay," or "the ox could go to another manger in the barn." This maneuverability was not available in the problem presented by the fable the "Porcupine and the Moles." In this fable the porcupine was clearly hurting the moles and there was no other available space. To solve this dilemma, most of the boys spontaneously used rights which was as predicted for the boys. It is almost as if the less room to move around, and the more serious the problem, the more a rule is necessary to solve it.

The idea of the fables pulling for different spontaneous solutions corroborates Langdale's findings that dilemmas structure the moral orientation used to solve the problem (Langdale, 1983). This was not expected of the fables since previously they had both been equally likely to have both orientations used in their solutions. This is a finding which will need to be addressed in the methodology of the thesis. Possibly the "Dog in the Manger" should be reworded to make the problem more difficult, or the "Porcupine and the Moles" could be reworded to make the problem less physically painful.

Another finding worth exploring is, will boys maintain the orientation used spontaneously as the one used in their best solution? They did in this pilot study and this question will be looked at systematically in the larger sample to be studied in the thesis. If this finding holds in the thesis data, an interesting question will arise, are the boys more interested in justifying a decision than in evaluating possible contingencies

of a problem? As was discussed in the previous section, the boys tend to describe why a counter suggestion might not work. This is different from the females who tend to use a response orientation for the best solution even when their spontaneous solution is that of rights. These girls may be responding to a counter suggestion, but that does not seem likely. It is possible that as they discuss the problem, all the contingencies come into focus, and the response orientation is the one which seems to provide for all of the variables which they see. In this case, they would be focusing on the process of making the decision rather than justifying the decision. These findings will be fascinating to explore in the larger sample of the thesis data.

One additional finding emerged from this pilot data which will be significant if found in the thesis. This finding is the idea of winning discussed in relation to the solving of moral dilemmas. Both ages and both sexes used the language of win or lose in their discussions of a particular solution's efficacy. The idea of win or lose was also expressed by the idea that a solution was not good, because it was too "one-sided." The language of win-lose, of being one- or two-sided presents a particular difficulty for moral decision making. If the moral decision is seen as one side winning, one side losing, then compromise is not feasible. Turning to the data, this idea becomes clear:

> I: How do you think someone who solved the problem by saying look it's like the mole's house so the porcupine must go. What would they think about?
>
> L: Like they would think about it one-sided. They wouldn't care about what happened to the porcupine, they'd only care about what happened to the moles and the mole's side of the story.

I: What do you mean by care?

L: They care what happens on both sides.

The preceding excerpt is from Lisa an 11 year old female who constructs the dilemma of the mole and porcupines as two-sided. In order to solve it satisfactorily the needs of both sides must be cared for. For her "caring means understanding," you learn to understand by "listening" and "listening to both sides." She continues in this line of thinking when responding to the counter suggestion of the interviewer:

I: Some people would say that you could use a rule like wait a minute, this is the ox's manger and since it's the ox's manger, then the dog has to leave. What do you think about that solution?

L: It's just not fair. It's not the right way to make the solution.

I: Why isn't it fair?

L: It's fair, but it's not fair at the same time. It's fair because the ox -- it was really his place, but it wasn't fair for the ox to go and wake him up.

Although this is not a cognitively sophisticated way to express her idea, she clearly sees the two sides of the dilemma and feels the best solution deals with both. She sees this as a problem of exclusion and refuses to exclude either side. This idea of seeing both sides of the dilemma and choosing to attend to both or leave one out recurs throughout several interviews. It is worth following this idea through because the construction presents this win-lose theme and this theme informs the idea of morality. If one feels one must decide a moral issue by choosing one side over the other, one must invoke a system of deciding on the more moral claim. This is a problem of ordering so that one claim holds more weight and excluding

as less legitimate the other claim. This necessitates a moral order like that posited by Kohlberg. However, if one sees the problem as inclusion and doesn't systematically discard variables, then one's task involves quite different strategies.

How do these adolescents view the problem? Do they take the view that one side must win? A return to the data will clarify this idea:

I: How do you think someone who solved the problem by saying look these moles made a promise and tough luck to them. How would somebody think about why that's the way they solved it?

S: That they had to stay there?

I: Yes, that they just had to let the porcupine stay.

S: Favoring the porcupine.

This eleven year old boy felt adhering to the rule never break a promise was not the best solution, because this rule clearly favored one party.

The fifteen year olds left the favoring and one side language and turned to language of advantage and upper handedness. In discussing the ox and the dog, one fifteen year old female felt the solution would be best if they compromised then "neither one is winning." One of the fifteen year old boys in discussing the same dilemma suggested the ox would probably leave but this would not be a good solution for then the ox would feel "defeated."

The other male suggested that if the porcupine wouldn't leave, you would have to take "drastic measures against him and try to fight him," and the other 15 year old female explains this drastic measure:

I: What do you do then? What would somebody do who does believe this is the law, you have to go, dog. What do they do when the dog doesn't go?

S: They could use violence or force.

I: Is that what naturally would happen?

S: As a last resort, I think they might.

The data indicate that when a problem is constructed so that the solution is reached by exclusion, the problem may become a power issue if the excluded party doesn't follow the rule. Both ages and both sexes were able to articulate the idea of winning-losing in a dilemma of this kind. In earlier research 6 year olds suggested force, e.g. "shooting the porcupine" if he didn't leave (Johnston). The violent or power issue returns in a more sophisticated manner in this adolescent data and clearly points to a question which should be explored in relation to moral theories.

If one's goal in solving the moral problem is to find the most worthy claim then it is necessary to order the needs of the participants in order to be sure one is truly finding the best solution. The ordering of least worthy to most worthy moral claims necessitates the exclusion of some variables in the moral problem. This exclusion leads to one or more claims not being attended to and one claim prevailing, for example in Kohlberg's scheme the most worthy moral claim is right to life (Colby et al., 1979). This claim should prevail over all others. However, if one's goal is not to exclude claims but to try to include all claims in making a just solution the strategies change and one must avoid a win-lose solution. The problem is then not what variables to eliminate but how to balance the claims.

These data also seem to suggest that when one solves a problem using a win-lose strategy, one may be required to use force for violence if the participants with the exluded claims don't cooperate in being excluded.

Although this study reports this win-lose idea for only eight adolescents it is striking that seven out of eight spontaneously use this kind of language. The careful analysis of the thesis data in light of this finding will be illuminating and add to the understanding of how cognitive strategies relate to moral problem solving goals.

The results of this study corroborate the work previously done by Gilligan and her colleagues. As expected, the response mode is more frequently chosen as the best solution by females. However, both males and females show evidence of using both orientations either by using them in different fables, by changing the orientation used in spontaneous and best solution or by discussing the strategy inherent in the thinking of an orientation during the interview.

This methodology provides answers to the question of ability to change orientations and provides interesting patterns of response. The methodology will be used in the thesis which will report research from a larger sample. The findings of the thesis should provide important data which will inform the field of research in moral development.

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Appendix

The Porcupine and the Moles

It was growing cold, and a Porcupine was looking for a home. He found a most desirable cave, but saw it was occupied by a family of Moles.

"Would you mind if I shared your home for the winter?" the Porcupine asked the Moles.

The generous Moles consented, and the Porcupine moved in. But the cave was small, and every time the Moles moved around they were scratched by the Porcupine's sharp quills. The Moles endured this discomfort as long as they could. Then at least they gathered courage to approach their visitor. "Pray leave," they said, "and let us have our cave to ourselves once again."

"Oh no!" said the Porcupine. "This place suites me very well. If you Moles are not satisfied, I suggest YOU leave!"

The Dog in the Manger

A dog, looking for a comfortable place to nap, came upon the empty stall of an ox. There it was quiet and cool, and the hay was soft. The dog, who was very tired, curled up on the hay and was soon fast asleep.

A few hours later the ox lumbered in from the fields. He had worked hard and was looking forward to his dinner of hay. His heavy steps woke the dog, who jumped up in a great temper. As the ox came near the stall, the dog snapped angrily, as if to bite him. Again and again, the ox tried to reach his food, but each time he tried the dog stopped him.

At last the patient ox spoke up. "You do not want to eat my dinner nor will you let me have it."

Both fables are adapted from Aesop's Fables, retold by A. McGovern which is published by Scholastic Book Company, 1963.